SUN ELECTRIC CORPORATION • One Sun Parkway • Crystal Lake, Illinois 60014 • (815) 459-7700
Cable: Suntester
Telex No: 6871226 SUN CL

IMPORTANT NOTICE TO OUR CUSTOMERS REGARDING MATERIAL SAFETY DATA SHEETS

The primary products manufactured and supplied by Sun Electric Corporation are classified as exempted "Articles" under the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Our interpretation of this regulation is that the primary products supplied by Sun Electric Corporation are furnished to you as manufactured articles, and consequently we are not required to furnish Material Safety Data Sheets for these products.

However, certain models of our gas analyzers utilize compressed gases (including carbon monoxide, carbon dioxide, oxygen, propane and hexane) for calibration purposes; and compressed freon gas is required for our air conditioning system chargers. One or more of these gases may be furnished with equipment purchased from Sun Electric Corporation or subsequently supplied by our field service personnel. While none of these gases are manufactured by Sun Electric Corporation, we have nevertheless chosen to furnish copies of the attached Material Safety Data Sheets for these products as an accommodation to you, our valued customer.

692-1571 (7821)

SEL 4504C

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Scott Specialty Gases

ROUTE 611 NORTH, PLUMSTEADVILLE, PA 18949 (215) 766-8861

REGIONAL PHONE NUMBERS

PA (215) 766-8861 **CA** (714) 887-2571 **MI** (313) 589-2950

MATERIAL SAFETY DATA SHEET

SECTION I - MATERIAL IDENTIFICATION

CHEMICAL NAME: Carbon Monoxide
Carbon dioxide and
Propane in Nitrogen

SUPPLIER: Scientific Gas Products

CHEMICAL FORMULA: CO, CO_2, C_3H_8/N_2

ADDRESS: 2330 Hamilton Blvd., South Plainfield, NJ 07080

CHEMICAL FAMILY: Acid gas,
Hydrocarbon gas mixture

IN CASE OF EMERGENCY, CONTACT THE PLANT MANAGER AT THE ABOVE ADDRESS

DATE PREPARED: 8/19/87

OTHER DESIGNATIONS: Inspection/Maintenance Calibration Gas

SECTION II - HAZARDOUS INGREDIENTS

			EXPOSURE LIMITS (PPM)	
			ACGIH	OSHA
COMPONENT	**CAS NO**	**CONCENTRATION**	**TLV**	**PEL**
Carbon Monoxide	630-08-0	1.2% - 8.0%	50	50 ppm TWA
Carbon Dioxide	124-38-9	4.0 - 16.0%	5000	5000 ppm TWA
Propane	74-98-6	600 -3200 ppm	None	1000 ppm TWA
Nitrogen	7727-37-9	Balance	None	None

SECTION III - PHYSICAL DATA

BOILING POINT: N/A

SPECIFIC GRAVITY (H_2O = 1): @ 20°c N/A

VAPOR PRESSURE @ 20°C: N/A

PERCENT, VOLATILE BY VOLUME (%): N/A

VAPOR DENSITY (AIR = 1): 1.0139

EVAPORATION RATE (______ =1): N/A

SOLUBILITY IN WATER: N/A

APPEARANCE AND ODOR: Colorless, odorless to sweet odor due to propane

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT AND METHOD	**FLAMMABLE LIMITS**	**LEL**	**UEL**
N/A	N/A		

EXTINGUISHING MEDIA: Use what is appropriate for surrounding fire

DISCLAIMER: The information in this Material Safety Data Sheet is offered without charge for use by technically qualified personnel at their discretion and risk. Scott Specialty Gases has made this sheet available with data which we believe is reliable, but the accuracy and completeness of the data is not guaranteed and no warranty is either expressed or implied. Since Scott Specialty Gases has no control over the use of this product described herein, we assume no liability for loss or damage incurred from the proper or improper use of such product. This form is essentially similar to U.S. Department of Labor form OSHA-20.

SPECIAL FIRE FIGHTING PROCEDURES: Keep fire-exposed cylinders cool with water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

SECTION V - REACTIVITY DATA

STABILITY: All components are stable

INCOMPATIBILITY (MATERIALS TO AVOID): Propane reacts with oxidizing agents. Carbon dioxide, being weakly acidic, reacts with alkaline materials to form carbonates and bicarbonates. Nitrogen reacts with Li, Nd, and Ti at high temperatures.

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION: Will not occur

SECTION VI - HEALTH HAZARD DATA

ROUTES OF ENTRY: Inhalation

EFFECTS OF OVER EXPOSURE **(ACUTE)**: Mixture may act as an asphyxiant by displacing oxygen. Symptoms would include rapid respiration, mental dullness, fatigue, nausea, and vomiting. Carbon monoxide is highly toxic and can cause shortness of breath, headache, confusion, nausea, dizziness, unconsciousness, and may be fatal. Carbon dioxide at high concentrations will produce labored breathing, possible unconsciousness, and is dangerous to life.

CARCINOGENICITY NTP? NO IARC MONOGRAPHS? NO OSHA REGULATED NO

EMERGENCY AND FIRST AID: Remove victim to fresh air. Give oxygen and/or artificial respiration as necessary. Get immediate medical attention for serious exposure.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Ventilate area. Remove leaking cylinder to exhaust hood or safe out of doors area. Eliminate sources of ignition.

WASTE DISPOSAL METHOD: Allow gas to discharge at a slow rate. Waste gas can be piped to an approved incinerator to burn off propane and convert CO to CO_2 under controlled conditions. Return defective cylinder to supplier.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE): Use a self-contained breathing apparatus in case emergency or non-routine use.

VENTILATION: Provide adequate general and local exhaust ventilation to meet TLV requirements.

OTHER PROTECTIVE EQUIPMENT: Safety shoes are recommended when handling cylinders.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store cylinders in a well ventilated area away from sources of heat and ignition. Cylinders should be returned with positive pressure.

OTHER PRECAUTIONS: Do not deface cylinders or labels and move cylinders only with an adequate hand truck.